REMARKS

Applicants appreciate the thorough review of the present application as reflected in the Official Action mailed May 14, 2004. Applicants have amended Claims 11 and 21 to correct typographic errors.

The Information Disclosure Statements

Applicants wish to bring to the Examiner's attention that two Information Disclosure Statements have been filed in the present case. In particular, an IDS was filed September 14, 2001 and a Supplemental IDS was filed September 18, 2001. Both of these IDSs appear in the PAIR system. Applicants request that the Examiner return initialed copies of the PTO-1449 forms submitted with these IDSs.

The Double Patent Rejection

Claims 1-23 stand provisionally rejected under the judicially created doctrine of double patenting. Applicants will submit a Terminal Disclaimer in the present case should the cited application issue as a patent.

The Claims Are Not Anticipated

Claims 1-8, 20 and 22 stand rejected as anticipated under 35 U.S.C. § 102 by United States Patent No. 5,652,908 to Douglas *et al.* (hereinafter "Douglas")[1]. Official Action, p. 3. Claims 1, 20 and 22 are independent claims. Accordingly, Applicants will first address the rejections of independent Claims 1, 20 and 22 and then address the rejections of the dependent Claims 2-8.

Under 35 U.S.C. § 102, "a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 (quoting *Verdegaal Bros. v. Union Oil Co.*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987)). "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily

[1] The Official Action refers to U.S. Patent No. 5,652,908 to Douglas *et al.* as "Francis."

present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" M.P.E.P. § 2112 (citations omitted) (emphasis added).

A finding of anticipation further requires that there must be no difference between the claimed invention and the disclosure of the cited reference as viewed by one of ordinary skill in the art. *See Scripps Clinic & Research Foundation v. Genentech Inc.*, 18 U.S.P.Q.2d 1001 (Fed. Cir. 1991). Thus, anticipation requires that a single prior art reference disclose each and every element of the anticipated claim.

In rejecting Claim 1, the Official Action cites to the abstract of Douglas as disclosing the recovery of network secure communications in a cluster environment. Official Action, p. 3. The Official Action cites to Figure 1 of Douglas as disclosing recovering from a failure of a primary distribution processor that provides secure communications over a network in a distributed workload environment having target hosts that are accessed through the primary distribution processor by a common network address. Official Action, p. 3. Douglas col. 4, lines 21-24 is cited as disclosing "providing to a backup distribution processor information sufficient to restart communications through the primary distribution processor utilizing network security." Official Action, pp. 3-4. The Official Action cites to col. 2, lines 55-58 as disclosing detecting failure of the primary distribution processor and restarting the communications utilizing network security at the backup distribution processor utilizing the provided information. Official Action, p. 4. Col. 5, lines 52-55 of Douglas are cited as disclosing routing both inbound and outbound communications with target hosts utilizing the common network address that are associated with a secure network communication through the backup distribution processor. Official Action, p. 4. Finally, the Official Action cites to col. 6, lines 4-5 as disclosing processing the inbound and outbound secure network communications at the backup distribution processor so as to provide network security processing of the inbound and outbound communications. Official Action, p. 4.

Applicants submit that Douglas does not disclose each of the recitations of Claim 1. In particular, Claim 1 recites:

> 1. (Original) A method of recovering from a failure of a primary distribution processor which provides secure communications over a network in a distributed workload environment having target hosts which are accessed through the primary distribution processor by a common network address, the method comprising the steps of:
>
> providing to a backup distribution processor information sufficient to restart communications through the primary distribution processor utilizing network security;
>
> detecting the failure of the primary distribution processor;
>
> restarting the communications utilizing network security at the backup distribution processor utilizing the provided information;
>
> routing both inbound and outbound communications with target hosts utilizing the common network address and which are associated with a secure network communication through the backup distribution processor; and
>
> processing the inbound and outbound secure network communications at the backup distribution processor so as to provide network security processing of the inbound and outbound communications.

Corresponding recitations are found in system and computer program product Claims 20 and 22.

As seen above, Claim 1 relates to a distributed workload environment where target hosts are accessed **through a distribution processor** by a **common network address**. Thus, each of the target hosts are accessed with the same network address. Figure 1 of Douglas, however, does not disclose accessing target hosts with a common network address. *See* Douglas, Figure 1 and col. 3, line 46 to col. 4, line 15. The client and servers and CAA of Figure 1 of Douglas are connected by a LAN, where each of the devices is connected directly to the LAN. Thus, there does not appear to be a "distribution processor" through which target hosts are accessed using a common network address. Accordingly, Applicants submit that Douglas does not disclose or suggest the distribution processor of Claim 1.

Furthermore, there is no indication in Douglas that the servers of Figure 1 of Douglas are accessed using the same network address. In fact, typically, the devices on a LAN would not be addressed using a common network address but would be addressed using different network addresses. Accordingly, Applicants submit that Douglas does not disclose or suggest the common network address recited in Claim 1.

With regard to the recitation of "providing to a backup distribution processor information sufficient to restart communications through the primary distribution processor utilizing network security," Applicants submit that Douglas does not

describe a distribution processor as that term is used in the present application and, therefore, does not disclose or suggest that information about restarting communications using network security connections be provided to a backup distribution processor. Furthermore, there is no indication in Douglas the network communications utilize network security. Col. 4, lines 21-24 of Douglas does not mention communications using network security. Furthermore, while the Abstract of Douglas does use the word "security," it does not describe communications through a distribution processor as using network security.

The discussion of security in Douglas appears to relate to security of communications from frontend tasks to backend tasks. The "frontend tasks" provide network communication and the "backend tasks" provide configuration control and resource control. Douglas, col. 5, lines 52-55. Douglas then goes on to describe that communications from the frontend tasks to the backend tasks may need security. There is no indication that the network communications to the frontend tasks utilize network security, only that a backend task must be able to ensure that the messages it receives are from an authorized frontend task. *See* Douglas, col. 5, lines 50-65. Thus, it does not appear that the "network communications" of Douglas utilize network security.

Furthermore, Claim 1 recites "**routing both inbound and outbound communications with target hosts utilizing the common network address** and which are associated with a secure network communication through the backup distribution processor" and "processing the **inbound and outbound secure network communications at the backup distribution processor** so as to provide network security processing of the inbound and outbound communications." As discussed above, Douglas does not describe the use of a common network address and, therefore, also does not disclose these recitations of Claim 1. Douglas also does not describe **inbound and outbound** communications using security. Even assuming that the communications from the frontend tasks to and from the backend tasks are network communications, these communications are only described as using security for communications **from** the frontend tasks to the backend tasks. See Douglas, col. 5, line 50 to col. 6, line 8. Accordingly, there is no indication that both directions use

security. As such, Douglas does not disclose or suggest security processing of inbound and outbound secure network communications.

In light of the above discussion, Applicants submit that the recitations of Claims 1, 20 and 22 are not disclosed by Douglas. Accordingly, Applicants submit that Claims 1, 20 and 22 are not anticipated by Douglas for at least these reasons and, therefore, request withdrawal of the present rejection.

Applicants submit that the dependent Claims 2-8 are patentable at least as depending from a patentable base claim. Applicants also submit that certain of the dependent claims are separately patentable over Douglas. For example, Claim 3 recites "transmitting network security information from which network security relationships associated with the communications through the primary distribution processor utilizing network security can be re-established at the backup distribution processor from the primary distribution processor to the backup distribution processor prior to failure of the primary distribution processor." The Official Action cites to col. 6, lines 51-55 of Douglas as disclosing the recitations of Claim 3. Official Action, p. 5. However, there is no discussion of "network security relationships" as recited in Claim 3 in the cited portions of Douglas. As such, Applicants submit that Claim 3 is separately patentable over Douglas for at least these additional reasons.

Claim 4 recites "storing in a common storage accessible to the backup distribution processor, network security information from which network security relationships associated with the communications through the primary distribution processor can be re-established at the backup distribution processor." The Official Action cites to Figure 8 of Douglas as disclosing the recitations of Claim 4. Official Action, p. 5. However, Figure 8 of Douglas describes sending configuration data to the fallback server, not storing the data in a common storage as recited in Claim 4. Accordingly, Applicants submit that Claim 4 is separately patentable over Douglas for at least these additional reasons. Claim 5 is separately patentable for analogous reasons.

Claim 6 recites "clearing the network security information from the common storage subsequent to the backup distribution processor obtaining the network security information from the common storage." The Official Action cites to col. 5, lines 20-24 of Douglas as disclosing the recitations of Claim 6. Official Action, p. 6. There is

no discussion in the cited portion of Douglas of clearing information from common storage as recited in Claim 6. Accordingly, Applicants submit that Claim 6 is separately patentable over Douglas for at least these additional reasons.

Claim 8 recites "identifying as non-distributed communications, communications to the backup distribution processor utilizing network security which were previously distributed communications routed through the primary distribution processor." The Official Action cites to col. 6, lines 3-8 of Douglas as disclosing the recitations of Claim 8. Official Action, p. 6. However, the cited portion of Douglas says nothing about identify communications as non-distributed as recited in Claim 8. Accordingly, Applicants submit that Claim 8 is separately patentable over Douglas for at least these additional reasons.

The Claims Are Not Obvious

Claims 9-19, 21 and 23 stand rejected under 35 U.S.C. § 103 as being obvious in light of Douglas and Martin *et al.*, IBM SG24-5309-00 (hereinafter "Murhammer"). Claims 9 and 10 depend from Claim 1 and, therefore, Applicants submit that these claims are patentable at least as depending from a patentable base claim. Claims 11, 21 and 23 are independent claims. Applicants will first address the independent Claims 11, 21 and 23 and then address dependent Claims 9, 10 and 12-19.

To establish a *prima facie* case of obviousness, the prior art reference or references when combined must teach or suggest *all* the recitations of the claims, and there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. *See* M.P.E.P. § 2143. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *See* M.P.E.P. § 2143.01(citing *In re Mills* , 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990)). As emphasized by the Court of Appeals for the Federal Circuit, to support combining references, evidence of a suggestion, teaching, or motivation to combine must be clear and particular, and this requirement for clear and particular evidence is not met by broad and conclusory statements about the teachings of references. *In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). In another decision, the

Court of Appeals for the Federal Circuit has stated that, to support combining or modifying references, there must be particular evidence from the prior art as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *In re Kotzab*, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000).

Furthermore, as stated by the Federal Circuit with regard to the selection and combination of references:

> This factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references, simply to "[use] that which the inventor taught against its teacher." W.L. Gore v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983). Thus the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion....

In re Sang Su Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002). As discussed in further detail below, Applicants submit that the Official Action has failed to establish a prima facie case of obviousness as the cited references do not disclose or suggest each of the recitations of the claims and a proper motivation to combine the references in the manner cited in the claims has not been established.

Claim 11 recites:

> 11. (Original) A method of recovering from a failure of a first routing communication protocol stack which routes for Internet Protocol Security (IPSec) communications between a network and a plurality of application instances executing on a cluster of data processing systems utilizing a virtual Internet Protocol Address (VIPA) Distributor and which distributes communications for connections to at least one dynamically routable VIPA (DVIPA) to a plurality of target communication protocol stacks, the method comprising the steps of:
>
> detecting failure of the first routing communication protocol stack at a second routing communication protocol stack;
>
> reading IPSec information associated with the at least one DVIPA from a coupling facility of the cluster of data processing systems;
>
> renegotiating IPSec SAs between the second routing communication protocol stack and remote IPSec peers utilizing the at least one DVIPA based on the IPSec information read from the coupling facility;
>
> re-routing the connections to the at least one DVIPA utilizing IPSec through the second routing communication protocol stack; and

> performing IPSec processing for the re-routed connections to the at least one DVIPA at the second routing communication protocol stack utilizing the renegotiated IPSec SAs.

Corresponding recitations are found in Claims 21 and 23.

Initially, Applicants note that Claim 11 specifically refers to dynamically routable virtual IP addresses (DVIPAs) and the user of a VIPA Distributor. The Official Action does not explain how either Douglas or Martin disclose the DVIPAs or VIPA Distributor and, Applicants submit that neither Douglas nor Martin describe DVIPAs or VIPA Distributor. Furthermore, as discussed above, Douglas does not describe the use of a common network address. DVIPAs are virtual IP addresses that are shared by a number of communication protocol stacks. *See* Specification, p. 35, lines 20-22. Neither the cited portions of Douglas nor the cited portions of Martin describe virtual IP address or virtual IP addresses that are shared by a number of communication protocol stacks. In fact, it is unclear from Douglas and Martin how IPSec could be provided with a shared IP address. As such, Applicants submit that each of the recitations of Claim 11 have not been found in the cited references.

The Official Action generally cites to pages 37-44 of Martin as teaching each of the recitations of Claim 11 that mention IPSec. Official Action, p. 9. However, the cited portion of Martin is merely a discussion of IPSec in general and, while it does use some of the words that are used in Claim 11, such as IPSec SA, there is no discussion of failure recovery, routing shared virtual IP address or the other operations recited in Claim 11 for recovery when a communication protocol stack performing IPSec processing for a shared virtual IP address fails. For example, Applicants submit that there is no discussion of DVIPAs, a cluster of data processing or a coupling facility in pages 37-44 of Martin. Thus, the cited portion of Martin does not disclose "reading IPSec information associated with the at least one DVIPA from a coupling facility of the cluster of data processing systems" as recited in Claim 11. Likewise, there is no discussion of "renegotiating IPSec SAs between the second routing communication protocol stack and remote IPSec peers utilizing the at least one DVIPA based on the IPSec information read from the coupling facility" or "re-routing the connections to the at least one DVIPA utilizing IPSec through the second routing communication protocol stack" as is further recited in Claim 11.

Finally, there is no discussion of "performing IPSec processing for the re-routed connections to the at least one DVIPA at the second routing communication protocol stack utilizing the renegotiated IPSec SAs" as is also recited in Claim 11.

Applicants further submit that there is no showing that the combination of Douglas and Martin would result in the specific recitations of Claim 11. As discussed above, Douglas describes a system for establishing communications sessions in a remote resource control environment. Martin generally describes IPSec. There is no indication in either reference of how IPSec could or would be incorporated into the system of Douglas to result in the recitations of Claim 11. Applicants submit that such a combination could only be reached through the impermissible use of hindsight in light of Applicants' present disclosure.

Finally, Applicants submit that the alleged motivation to combine Douglas and Martin in the manner recited in Claim 11 is the type of conclusory assertion that the Federal Circuit has found to be insufficient to establish a prima facie case of obviousness. In particular, merely because something could "provide better security" does not suggest the specification combination of recitations of Claim 11. *See* Official Action, p. 9.

In light of the above discussion, Applicants submit that Claims 11, 21 and 23 are patentable over the cited references. Applicants, therefore, request withdrawal of the rejections of these claims.

Claims 9 and 10 depend from Claim 1 and, therefore, are patentable as depending from a patentable base claim. Applicants also submit that Claims 9 and 10 are separately patentable as Applicants submit that the cited portions of Martin are merely a general description of IPSec and do not disclose or suggest, either alone or in combination with Douglas, the specific recitations of Claims 9 and 10. *See* Official Action, pp. 7-8. Furthermore, Applicants submit that the motivation to combine Douglas and Martin in the manner recited in Claims 9 and 10 is the type of conclusory assertion that the Federal Circuit has found to be insufficient to establish a prima facie case of obviousness for the reasons discussed above with reference to Claim 11. *See* Official Action, pp. 8-9.

Claims 12-19 depend from Claim 11 and, therefore, are patentable at least as depending from a patentable base claim. Applicants also submit that these claims are

separately patentable over the cited references. For example, Claim 12 recites "notifying an instance of an Internet Key Exchange (IKE) application associated with the second routing communication protocol stack of the failure of the first routing communication protocol stack." There is no discussion of such a notification of an IKE instance of the failure of a routing communication protocol stack in the cited portion of Martin. *See* Official Action, p. 10. Likewise, Claim 12 recites "installing the new IPSec SAs in the second routing communication protocol stack." Martin also does not describe installing new IPSEC SAs in a second routing communication protocol stack. Accordingly, Applicants submit that Claim 12 is separately patentable over the cited references for at least these additional reasons.

In rejecting Claims 13-19, the Official Action states that these claims "do not teach or define any new limitations above claims 9-12." Official Action, p. 10. Applicants submit that this statement is incorrect. For example, Claim 15 recites "establishing IPSec SAs with remote IPSec peers utilizing the at least one DVIPA" and "storing IPSec SA information in the coupling facility sufficient to allow renegotiation of the established IPSec SAs." Applicants submit that these recitations are not found in any of Claims 9-12. Accordingly, the Official Action has failed to address the recitations of Claim 15. Furthermore, Applicants submit that these recitations are neither disclosed nor suggested by the cited references and, therefore, Claim 15 is separately patentable over the cited references for at least these additional reasons. The same is true for the recitations of Claims 16-19. Accordingly, Applicants submit that these claims are separately patentable for at least these additional reasons.

Conclusion

In light of the above discussion, Applicants submit that the present application is in condition for allowance, which action is respectfully requested.

It is not believed that an extension of time and/or additional fee(s)-including fees for net addition of claims-are required, beyond those that may otherwise be provided for in documents accompanying this paper. In the event, however, that an extension of time is necessary to allow consideration of this paper, such an extension is hereby petitioned under 37 C.F.R. §1.136(a). Any additional fees believed to be

due in connection with this paper may be charged to our Deposit Account No. 09-0461.

Respectfully submitted,

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